

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Application No.:	10/756,373	:	Examiner:	CORBIN, Aurthur
Filed:	January 14, 2004	:	TC/A U:	1794
Applicant:	MILLIGAN, Robert Stieper	:	Confirmation No.:	2361
Docket No.:	57282.2	:	Customer No.:	27526
Title:	INJECTION MOLDED MEAT-BASED PET PRODUCT			

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Commissioner for Patents
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Sir:

APPEAL BRIEF TO BOARD OF PATENT APPEALS AND INTERFERENCES

Appellant submits the following Appeal Brief to the Board of Patent Appeals and Interferences under 35 C.F.R. § 41.37. The Notice of Appeal was filed May 22, 2008.

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I. THE REAL PARTY IN INTEREST

The real party in interest for the above-referenced application is MI Industries, Inc. having a principal place of business at 6200 N. 56th St., Lincoln, NE, 68504-1763. MI Industries, Inc. is the assignee and sole owner of the entire right, title and interest in and to the invention and the present patent application.

II. RELATED APPEALS AND INTERFERENCES

Appellant is not aware of any appeals or interferences which would directly affect or be directly affected by this Appeal or would have a bearing on the Board's decision in this Appeal.

III. STATUS OF CLAIMS

Claims 1-4, 6 and 8-20 are currently pending with claims 1 and 12 being independent. Claims 1-4, 6 and 8-20 are the subject of this appeal and stand rejected under 35 U.S.C. § 103(a).

IV. STATUS OF AMENDMENTS

The present application was filed on January 14, 2004 claiming benefit of priority from U.S. Provisional Patent Application No. 60/439,792, filed January 14, 2003. A first non-final rejection was mailed on July 23, 2004. On January 21, 2005 a Notice of Appeal was filed. In addition, on January 21, 2005 an Amendment and Response to the Non-final Rejection was filed by Appellant. A first Final Rejection was then mailed on February 18, 2005. On April 18, 2005, an Amendment and Response After Final Rejection was filed by Appellant. An Advisory Action was mailed on May 3, 2005. A Request for Continued Examination was filed by the Appellant on June 13, 2005 and the Amendment and Response to the first Final Rejection filed on April 18, 2005 was entered on June 13, 2005.

A second Non-final Rejection was mailed July 12, 2005. On January 13, 2006 an Amendment and Response to the second Non-final Rejection was filed by Appellant. A second

Final Rejection was mailed on February 8, 2006. On August 8, 2006 a Request for Continued Examination and an Amendment and Response to the second Final Rejection were filed by the Appellant. A third Final Rejection was mailed on October 17, 2006. An Examiner Interview was conducted over the telephone on November 28, 2006. A Request for Continued Examination and Amendment and Response to the third Final Rejection were filed by the Appellant on April 17, 2007.

A fourth Final Rejection was mailed on June 15, 2007. The Appellant filed a Declaration of Inventor and an Amendment and Response to the fourth Final Rejection on October 15, 2007. An Advisory Action was mailed on October 19, 2007. A Request for Continued Examination was filed by the Appellant on October 31, 2007 and the Amendment and Response to the fourth Final Rejection was entered on that date. A Non-final Rejection was mailed on November 23, 2007. No further amendments have been filed and all of the above-referenced amendments were entered into the record.

V. SUMMARY OF THE CLAIMED SUBJECT MATER

The present invention relates generally to long lasting meat-based pet products, more particularly all natural meat-based injection molded pet chew products that are long lasting and suitable for dogs, cats, ferrets and other animals that have a strong desire and need to chew or gnaw. The present invention comprises two independent claims, claim 1 and claim 12. Support for independent claims 1 and 12 is set for below by reference to the specification by paragraph number.

A. Claim 1

Claim 1 covers an injection molded meat-based pet product. The product covered in claim 1 comprises of at least one animal product [005] and one carrying agent [009], [010] and

[011]. The at least one animal product is made up of at least one of breast meat, thigh meat, offal items and organ meat [005] and [018]. The animal product makes up about 10% to about 50% by weight of the composition [017]. Consequently, the carrying agent makes up about 90% to about 50% by weight of the composition [017]. The carrying agent comprises a copolymer and powdered vegetable starch [009], [010], [011] and [019].

The at least one animal product is further defined to have (i) a particle size of between about 300 and about 1,200 microns [008], and (ii) less than about 20% moisture content by weight [006].

B. Claim 12

Claim 12 covers a process for producing an injection molded meat pet product. The claimed process comprises of the following steps. An animal product is pulverized to a particle size of between about 300 and about 1,200 microns to produce a milled meat product [008]. Further, the at least one animal product comprises: (i) at least one of breast meat, thigh meat, offal items and organ meats [005] and [008] and (ii) less than about 20% moisture by weight [006].

Next, the claimed process requires blending the milled meat product with a copolymer carrying agent until homogeneity of a blended product is achieved [009] and [010]. The blended product is made up of about 10% to about 50% by weight of the milled meat product [008] and [017] and about 90% to about 50% by weight of the copolymer carrying agent [017]. Finally, the copolymer carrying agent further comprises powdered vegetable starch [011] and [019].

There are no means plus function or step plus function recitations in any of the claims.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Appellant respectfully submits that the Examiner has not met his burden in establishing 35 U.S.C. § 103(a) obviousness in the following rejections:

1. Claims 1-3, 6 and 8-20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,586,027 to Axlerod et al. in view of U.S. Patent No. 6,455,083 to Wang.

B. Claim 4 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Axelrod in view of Wang and further in view of U.S. Patent No. 6,228,418 to Gluck.

VII. ARGUMENT

A. Legal Standards

Subsequent to the decision in KSR International Co. v. Teleflex, Inc., 127 S. Ct. 1727 (2007), the United States Patent and Trademark Office issued “Examination Guidelines for Determining Obviousness Under 35 U.S.C. § 103 in View of the Supreme Court Decision in KSR International Co. v. Teleflex Inc.”, Federal Register, Vol. 72, No. 195, p. 57526 et seq. (October 10, 2007) (“Guidelines”). Under the Guidelines and as expressly stated in KSR, the applicable standard for applying § 103 involves the Graham factors using an “objective” analysis.

The Graham factors are: (a) determining the scope and content of the prior art, (b) ascertaining the differences between the claimed invention and (c) the prior art and resolving the level of ordinary skill in the art. Graham v. John Deere Co. of Kansas City, 86 S.Ct. 684, 694 (1966). Although obviousness is ultimately an issue of law, the Examiners play a crucial role as fact finder to create the factual record in which to base a finding of obviousness. Guidelines, p. 57527. Examiners must articulate in the written record their fact finding

concerning the state of the art, the teachings of the prior art and suggests the Examiner, in some circumstances, to articulate how a person of ordinary skill would interpret these facts.

Guidelines, p. 57527. Thus, the expressed factual findings become the basis for any obviousness finding.

The Guidelines delineate the rationales under which the PTO may make a valid rejection based on § 103 obviousness:

- (A) Combining prior art elements according to known methods to yield predictable results;
- (B) Simple substitution of one known element for another to obtain predictable results;
- (C) Use of known technique to improve similar devices (methods, or products) in the same way;
- (D) Applying a known technique to a known device (method, or product) ready for improvement to yield predictable results;
- (E) “Obvious to try” – choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success;
- (F) Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces if the variations would have been predictable to one of ordinary skill in the art;
- (G) Some teaching, suggestion, or motivation in the prior art that would have led one of ordinary skill to modify the prior art reference or to combine prior art reference teachings to arrive at the claimed invention.

Guidelines, p. 57529.

“In short, the focus when making a determination of obviousness should be on what a person of ordinary skill in the pertinent art would have known at the time of the invention, and on what such a person would have reasonably expected to have been able to do in view of that

knowledge. This is so regardless of whether the source of that knowledge and ability was documentary prior art, general knowledge in the art, or common sense.” Guidelines, p. 57527.

The Examiner has the burden of making a prima facie case of obviousness falling within one of the rationales articulated above. In this case, it appears the Examiner has based his obviousness rejection on rationale (B)—a simple substitution of one known element for another to obtain predictable results. No other rationale appears to be the basis of the Examiner’s rejection; therefore, their consideration is supplementary. In further support of the Appellant’s assertion of non-obviousness, an argument within the subject matter of rationale (G) will be presented. In addition, arguments to rebut the Examiner’s other rejections will be re-articulated.

B. Rejection under 35 U.S.C. § 103(a) over U.S. Patent No. 6,586,027 to Axlerod et al. in view of U.S. Patent No. 6,455,083 to Wang.

The Examiner’s final rejection of claims 1-3, 6, 8-20 under 35 U.S.C. § 103(a) was communicated in the Examiner’s Office Action mailed November 23, 2007. In the Appellant’s pending application claims 1 and 12 are independent and claims 2-3, 6, 8-11 depend from claim 1 and claims 13-20 depend from claim 12. Claims 1-3, 6, and 8-20 will be argued as a group.

1. Animal meat disclosed in Appellant’s pending patent is not a simple substitution of animal meal disclosed in Axelrod.

The Examiner maintained a rejection based on obviousness in the final Office Action mailed November 23, 2007. The Examiner’s rationale for this rejection was most clearly articulated in the Office Action mailed June 15, 2007.

“Although Axelrod et al does not include animal meat per se in the pet chew described, Wang renders it obvious to substitute beef or chicken meat for the animal meal used in Axelrod et al. In this regard, applicant is referred to col. 3, lines 31-40 of Wang wherein chicken or beef meat are disclosed as being alternatives to animal meal, e.g. chicken powder, used in pet chews. The particular particle size of the Appellant’s animal meat component is not critical, and in the absence of unexpected results is entitled to no patentable weight, but rather merely depends upon personal preference and consumer appeal.” Office Action mailed June 15, 2007, para. 6.

Although the statutory basis for the Examiner's argument is consistent, it appears the Examiner's rationale for the obviousness rejection was based is "the simple substitution of one known element for another to obtain predictable results." Office Action, mailed June 15, 2007, para. 6.

Wang discloses chicken or beef meat as being alternatives to animal meal, e.g. chicken powder, exclusively as a flavoring used to be make pet chews "more palatable", col. 3, lines 31-40. Wang only discloses a 0.5 to 15 wt. % to accomplish the flavoring purpose. The meat disclosed in the Wang patent need not provide any nutritional value. Wang discloses the use of other nutrients to provide the nutritional value for the pet. The nutritional value of the pet chews in Wang is provided exclusively by: vitamins, minerals, trace elements, animal fat, plant oil, lecithin and herbs. Animal meat is used in the Appellant's invention as a base of the pet product. Animal meat comprises 10 to 50 wt. % of the Appellant's invention. There is no teaching, suggestion or motivation to transform meat as a flavoring to meat as the base either physically or nutritionally in Wang. While Wang discloses the use of meat in a pet chew, the functional difference between meat as a flavor and meat as a physical and nutritional base required an inventive step over the prior art in order to produce a marketable meat based pet chew.

Further, the Examiner's rationale for this rejection is in error because the animal meat disclosed in Wang cannot be simply substituted for the animal meal in Axelrod. Axelrod's animal meal disclosure is limited to using animal meal as a resin component. Animal meal is disclosed to be combined with denatured and partially hydrolyzed collagen for exclusive use as a resin in the Axelrod disclosure. Axelrod, col. 2, lines 22-26 and col. 5, lines 53-56. The Merriam-Webster dictionary provides the following definition for resin:

1 a: any of various solid or semisolid amorphous fusible flammable natural organic substances that are usually transparent or translucent and yellowish to brown, are formed especially in plant secretions, are soluble in organic solvents (as ether) but not in water, are electrical nonconductors, and are used chiefly in varnishes, printing inks, plastics, and sizes and in medicine; b: rosin;

2 a: any of a large class of synthetic products that have some of the physical properties of natural resins but are different chemically and are used chiefly in plastics.
(<http://www.merriam-webster.com/dictionary/resin>).

Animal meat does not fit within the definition of a resin as provided above. Axelrod exclusively discloses animal meal in combination with denatured partially hydrolyzed collagen in an alternate embodiment to form the resin that ultimately results in a solid, “plastic” health chew toy. Animal meat, as disclosed by the Appellant, is not a resin and cannot function as a resin; therefore, substituting animal meat for animal meal would not be an obvious simple substitution. The simple substitution of animal meat in the Appellant’s pending patent for the animal meal disclosed in Axelrod would not yield predictable results because animal meat cannot be used as a resin. Animal meat and animal meal do not function similarly within the disclosures; therefore, there can be no obviousness based on a substitution of animal meat for animal meal within the Appellant’s pending claims and the Axelrod patents.

2. There is no teaching, suggestion, or motivation in the prior art that would have led one of ordinary skill to modify the prior art reference or to combine prior art reference teachings to arrive at the claimed invention.

A teaching, motivation or suggestion found in the cited references can be a basis for rejection. In this case, there is no suggestion in these references of many of the claimed elements. In particular, the type of protein (meat) and its particle size. If the specific type of protein is not taught, then its particle size would not be obvious from the combined references. There is simply no teaching in the cited references of any criteria about how to make a meat

containing animal chew toy with the Axelrod disclosure and, especially the particle size in the animal product and the moisture content.

In fact, it appears that the disclosure of the animal meal is nothing more than a general comment meant to expand the scope of the disclosure regarding the detailed disclosure of the animal chew toy containing nutraceuticals, such as vitamins, minerals and herbs. Obviousness cannot be found through a teaching, suggestion or motivation basis in this case because there was no suggestion or direction in the cited references for their combination or for them to be combined to produce the Appellant's invention.

3. The claimed particle size is not the result of "routine experimentation".

It is clear that neither Axelrod et al. nor Wang, discloses or teaches the particle size recited in the claims of the present invention. The claims of the present invention recite an animal chew toy with "a particle size of between about 300 and about 1,200 microns." The particle size of the meat product is an important condition for manufacturing the pet products, such as the animal chew toy, particularly needed for blending and molding processes. Furthermore, the particle size of the meat product is an important condition for the final product because it should meet the customer's preference (actually the pet's preference). The inventor, representative of a person ordinarily skilled in the art declared that "using animal meat particles of a particle size between about 300 and about 1200 microns for the injection molded dog treat or finding the optimum animal meal particle size for the injection molded dog treat is not a routine experimentation in the field of pet toys." Declaration of Inventor, Robert S. Milligan, October 15, 2007.

The Examiner asserts that the finding the optimum animal meal particle size (claim 1 and 12) and the optimum molding parameter (claims 14, 15, and 19) would require nothing more

than routine experimentation by one skilled in this art. However, as discussed above, this is not about optimum range of the conditions. Wang does not disclose or teach the recited limitation “a particle size of between about 300 and about 1,200 microns.” For example, Wang discloses “chicken powder and turkey powder.”

The “powder” is known in the art to be a term utilized to refer to a particle size that is substantially smaller than 300 microns. The Examiner has the burden of defining the state of the art and what a Person Ordinary Skill would know the particle size for “powder”. Currently, the Appellant has continually stated that “powder” in the art refers to a particle size less than 300 microns and the Examiner maintains to dismiss this assertion relying on “common knowledge” and has not documented any evidence for why he disputes this proposition. As noted by the court in In re Alhert, 424 F.2d 1088, 1091 (CCPA 1970), the notice of facts asserted to be well-known, or to be common knowledge must be “capable of instant and unquestionable demonstration as to defy dispute.” The Examiner’s reliance on common knowledge for powder particle size in the art is not capable of unquestionable demonstration to defy dispute.

Wang discloses the use of meat as a flavoring, but does not disclose a functional particle size for such use. As such, the larger particle size of between about 300 and about 1,200 microns is not the size of the ingredients disclosed by Wang. In terms of suggestion or motivation to make the proposed modification, to the contrary, Wang teaches away from the particle size of between about 300 and about 1,200 microns as the only dry particle size disclosed by Wang is “powder”. Wang, col. 3, lines 35-40. There is no motivation to combine if a reference teaches away from its combination with another source. Tec Air., Inc. v. Denso Mfg. Michigan Inc., 192 F.3d 1353, 1360 (Fed. Cir. 1999).

Further, the Examiner asserts that the particle size of Appellant's animal component is not critical, and in the absence of unexpected results is entitled to no patentable weight but rather merely depends upon personal preference and consumer appeal. The issue of whether or not the limitation of the particle size is critical is irrelevant to determine non-obviousness because the prior art reference (or references when combined) must teach or suggest all claim limitations. The consumer preference is also irrelevant. Any distinctive technical features to obtain more consumer preferences can be legitimate objects of the patentable invention.

C. Rejection under 35 U.S.C. § 103(a) as over Axelrod et al. in view of Wang and further in view of U.S. Patent No. 6,228,418 to Gluck.

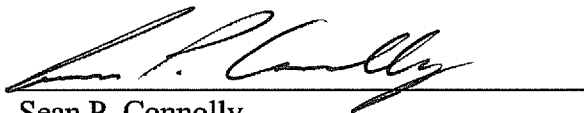
Claim 4 stands rejected as being obvious over Axelrod et al. in view of Wang as set forth in the first portion of the rejection and further view of Gluck et al. Gluck et al. adds nothing more to the teaching of the two principle references except the teaching of avoiding the use of animal products in such chew toys. See for example column 1, lines 26-30. Regardless, Gluck, et al. do not teach how to practice the present invention and does not use any copolymer in its formula. The fact that it discloses the use of cartilage does not add to the teaching of the other two references. Regardless, claim 4 depends from an allowable claim and thus is patentable for this reason alone.

VIII. CONCLUSION

For the foregoing reasons, it is respectfully submitted that the pending claims patently distinguish over the applied prior art and should be deemed allowable. The Appellant courteously requests that the rejection of claims 1-4, 6, and 8-10 as unpatentable over the prior art be reversed. Should any fees be necessitated by this response, the Commissioner is hereby authorized to deduct such fees from deposit account number 11-0160.

Respectfully submitted,

Date: October 22, 2008

A handwritten signature in black ink, appearing to read "Sean P. Connolly", is written over a horizontal line.

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IX. CLAIMS APPENDIX

1. An injection molded meat-based composition comprising:

at least one animal product comprising about 10% to about 50% by weight of the composition, wherein said at least one animal product comprises at least one of breast meat, thigh meat, offal items and organ meats; and

at least one carrying agent comprising about 90% to about 50% by weight of the composition, wherein said at least one carrying agent comprises a copolymer and powdered vegetable starch; and

wherein said at least one animal product comprises: (i) a particle size of between about 300 and about 1,200 microns, and (ii) less than about 20% moisture content by weight.
2. The composition of claim 1, wherein said at least one animal product comprises a meat product, poultry product, aquatic animal product, or a combination thereof.
3. The composition of claim 2, wherein said at least one animal product comprises a product from beef, pork, lamb, turkey, chicken, buffalo, venison, rabbit, duck, goose, fish, shellfish, or a combination thereof.
4. The composition of claim 1, wherein said at least one animal product further comprises cartilage.
5. (Cancelled).
6. The composition of claim 1, wherein said at least one animal product comprises less than about 10% moisture content by weight.
7. (Cancelled).
8. The composition of claim 1, wherein said composition further comprises at least one nutraceutical.

9. The composition of claim 8, wherein said at least one nutraceutical comprises vitamins, amino acids, minerals, enzymes, herbs, or a combination thereof.

10. The composition of claim 8, wherein said at least one nutraceutical comprises methylsulfonylmethane (MSM), glucosamine, chondroitin, cetyl myristoleate, alfalfa, alpha amylase, beta carotene, blue green algae, brewer's yeast, cat's claw (i.e., Una de Gato), desiccated liver, evening primrose oil, L methionine, oyster shell, papain, pine bark, potassium (citrate), selenium (yeast), shark cartilage, taurine, vitamin C, vitamin E, whey protein, zinc (dipeptide chelate), or a combination thereof.

11. The composition of claim 8, wherein said at least one nutraceutical comprises less than or equal to about 30% by weight of the composition.

12. A process for producing an injection molded meat-based product comprising the following steps:

(a) pulverizing an animal product to a particle size of between about 300 and about 1,200 microns, to produce a milled meat product, wherein said at least one animal product comprises: (i) at least one of breast meat, thigh meat, offal items and organ meats, and (ii) less than about 20% moisture content by weight; and

(b) blending the milled meat product with a copolymer carrying agent until homogeneity of a blended product is achieved; and

wherein the blended product comprises about 10% to about 50% by weight of the milled meat product and about 90% to about 50% by weight of the copolymer carrying agent; and wherein the copolymer carrying agent further comprises powdered vegetable starch.

13. The process of claim 12, wherein said process further comprises the following steps:

- (c) feeding the blended product into a mold; and
- (d) removing the blended product for the mold.

14. The process of claim 13, wherein at step (c), the blended product is fed into the mold at a cavity temperature of between about 300 to 500 °F.

15. The process of claim 13, wherein, prior to step (d), the process further comprises a residency time of between about 45 and about 70 seconds.

16. The process of claim 13, wherein said mold comprises at least one cavity.

17. The process of claim 12, wherein step (b) further comprises blending the milled meat product and copolymer carrying agent with a nutraceutical.

18. The process of claim 17, wherein said blended product comprises not greater than about 30% by weight of the nutraceutical.

19. The process of claim 13, wherein the mixture is subjected to approximately 1,000 psi during step (c).

20. An injection molded meat-based product obtained by the process of claim 13.

X. EVIDENCE APPENDIX

Appended is the Declaration of Robert Stieper Milligan, dated Oct. 9, 2007, submitted under 37 C.F.R. § 1.132 and accepted and entered in the record by the Examiner in the Office Action mailed November 23, 2007.

XI. RELATED PROCEEDINGS APPENDIX

None.